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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.          | CONFIRMATION NO. |  |
|--|-------------|----------------------|------------------------------|------------------|--|
| 10/542,974   | 01/24/2006  | Christian Hesse      | 14219-093US1<br>P2003,0036 U |                  |  |
| 26161 7590 08/09/2007<br>FISH & RICHARDSON PC<br>P.O. BOX 1022 |             |                      | EXAMINER                     |                  |  |
|  |             |                      | CHEN, K                      | CHEN, KIN CHAN   |  |
| MINNEAPOLIS, MN 55440-1022                                     |             |                      | ART UNIT                     | PAPER NUMBER     |  |
|  |             |                      | 1765                         |                  |  |
|  |             |                      |                              |                  |  |
|  |             | ,                    | MAIL DATE                    | DELIVERY MODE    |  |
|  |             |                      | 08/09/2007                   | PAPER            |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| Office Action Summary   |   | Application No.  |  | Applicant(s)   |         |  |  |  |
|---|---|--|--|--|---------|--|--|--|
|   |   | 10/542,974   |  | HESSE, CHRIST  | TAN     |  |  |  |
|   |   | Examiner   |  | Art Unit   |         |  |  |  |
|   |   | Kin-Chan Chen  |  | 1765   |         |  |  |  |
| Period for Reply  | TE of this communication app  | •  |  | ·  |         |  |  |  |
| WHICHEVER IS LONG  - Extensions of time may be avairafter SIX (6) MONTHS from the  - If NO period for reply is specific  - Failure to reply within the set or | ER, FROM THE MAILING DA<br>lable under the provisions of 37 CFR 1.13<br>e mailing date of this communication.<br>ed above, the maximum statutory period we<br>rextended period for reply will, by statute,<br>e later than three months after the mailing | ATE OF THIS CO<br>36(a). In no event, how<br>will apply and will expire<br>cause the application t | OMMUNICATION ever, may a reply be time SIX (6) MONTHS from to become ABANDONED | l.<br>ely filed<br>he mailing date of this (<br>) (35 U.S.C. § 133). | ·       |  |  |  |
| Status  |   |  |  |  |         |  |  |  |
| 1) Responsive to co   | mmunication(s) filed on   |  |  | •  |         |  |  |  |
| 2a) ☐ This action is FIN.   |   | action is non-fin  | al.  |  |         |  |  |  |
| 3) Since this applica   | Since this application is in condition for allowance except for formal matters, prosecution as to the ments is  |  |  |  |         |  |  |  |
| closed in accorda   | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.   |  |  |  |         |  |  |  |
| Disposition of Claims   |   |  |  |  |         |  |  |  |
| 4)⊠ Claim(s) <u>1-11</u> is/a   | re pending in the application.  |  |  |  |         |  |  |  |
| 4a) Of the above of   | 4a) Of the above claim(s) is/are withdrawn from consideration.  |  |  |  |         |  |  |  |
| 5) Claim(s) is  | S) ☐ Claim(s) is/are allowed. S) ☐ Claim(s) <u>1-11</u> is/are rejected.  |  |  |  |         |  |  |  |
| 6)⊠ Claim(s) <u>1-11</u> is/a   |   |  |  |  |         |  |  |  |
| 7) Claim(s) is  | /are objected to.   |  | . •  |  |         |  |  |  |
| 8) Claim(s) a   | re subject to restriction and/or  | r election require   | ment.  |  |         |  |  |  |
| Application Papers  |   |  |  |  |         |  |  |  |
| 9) The specification i  | s objected to by the Examine  | r.   |  |  |         |  |  |  |
| 10)⊠ The drawing(s) file  | 0)⊠ The drawing(s) filed on <u>21 July 2005</u> is/are: a)⊠ accepted or b)⊡ objected to by the Examiner.  |  |  |  |         |  |  |  |
| Applicant may not r   | Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |  |  |  |         |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).                                      |   |  |  |  |         |  |  |  |
| 11)☐ The oath or declar   | ration is objected to by the Ex   | aminer. Note the   | attached Office  | Action or form P   | TO-152. |  |  |  |
| Priority under 35 U.S.C. §  | 119   |  |  |  |         |  |  |  |
| =   | is made of a claim for foreign<br>e * c)  None of:  | priority under 35  | U.S.C. § 119(a)  | -(d) or (f).   | •       |  |  |  |
| 1.⊠ Certified copies of the priority documents have been received.  |   |  |  |  |         |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No  |   |  |  |  |         |  |  |  |
| Copies of the certified copies of the priority documents have been received in Application No   |   |  |  |  |         |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).   |   |  |  |  |         |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.  |   |  |  |  |         |  |  |  |
|   |   |  |  |  |         |  |  |  |
|   |   |  |  | •  | ,       |  |  |  |
| Attachment(s)   |   |  |  |  | ·       |  |  |  |
| 1) Notice of References Cited   | (PTO-892)   | 4) 🗌   | Interview Summary  | (PTO-413)  |         |  |  |  |
| 2) Notice of Draftsperson's Pa  | tent Drawing Review (PTO-948)   |  | Paper No(s)/Mail Da  | te   |         |  |  |  |
| 3) Information Disclosure State Paper No(s)/Mail Date 0721  |   | 5) <u> </u>  | Notice of Informal Pa  | atent Application  |         |  |  |  |
| .S. Patent and Trademark Office   | <del></del> ·   | -,   |  |  |         |  |  |  |

### **DETAILED ACTION**

# Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States

#### Claim Rejections - 35 USC § 102

2. Claims 1-3, 5-7, 10, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujimoto et al. (US 2002/0089065).

In a method for forming a device, Fujimoto discloses forming a first electrode and a second electrode on a base body; the first electrode at a location opposite the second electrode on the base body; chemically etching at least a portion of the base body to adjust the resistance of the base body to a predetermined value. See abstract, [0029] [0031], Figures 1A and 1B.

The limitations of claims 1, 10, and 11 have been addressed above and rejected for the same reasons, supra.

As to dependent claim 2, Fujimoto discloses that the base body comprises a ceramic material, see, for example, [0029].

As to dependent claim 3, see [0029] and [0045].

As to dependent claims 5 and 6, Fujimoto discloses immersing the base body in an etching liquid, such as sulfuric acid, see [0031].

As to dependent claim 7, see Table 1.

## Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 4, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimoto et al. (US 2002/0089065).

In a method for forming a device, Fujimoto discloses forming a first electrode and a second electrode on a base body; the first electrode at a location opposite the second electrode on the base body; chemically etching at least a portion of the base body to adjust the resistance of the base body to a predetermined value. See abstract, [0029] [0031], Figures 1A and 1B. Table 1.

As to dependent claim 8, Fujimoto teaches measuring the resistance before and after the chemical etch, hence, it would have been obvious to one with ordinary skill in

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the art to check the progress of etching during the etching process, therefore, reading on the limitation.

Fujimoto teaches that the portion of base body dissolved affects the resistance value [0031], Table 1. Claim 9 differs from Fujimoto by specifying various processing parameters (such as determine a difference between the predetermined valued and a measured value of the resistance and determining a duration for the etching). However, same were known to be result-effective variables and commonly determined by routine experiment. The process of conducting routine experimentations so as to produce an expected result is obvious to one of ordinary skill in the art. In the absence of showing criticality or new, unexpected results, a person having ordinary skill in the art would have found it obvious to modify the prior art by performing routine experiments (by using different process parameters) to obtain optimal result with a reasonable expectation of success.

Dependant claim 4 differs from Fujimoto by specifying various sizes and dimensions (e.g., less than about 3 mm). Because same are merely a matter of choices of design depending on the product requirements and the disclosure of Fujimoto is not limited to any size of the base body, in absence of showing criticality or unexpected results, it would be obvious to one skilled in the art to use various dimensions in order to accommodate the specific product design and meet the product requirement.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kin-Chan Chen whose telephone number is (571) 272-

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1461. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on (571) 272-1465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

August 6,2007

Kin-Chan Chen Primary Examiner Art Unit 1765